touch panel **150** first and then scan the first touch panel **140**. The touch controller **182** may scan the touch sensors in the first touch panel **140** and the second touch panel **150** on a row-first basis or on a column-first basis.

[0088] As described above, by changing the sensor arrangement pattern according to an application, both the first touch panel **140** and the second touch panel **150** can be controlled through the single touch controller **182**, and the user can be provided with an optimal touch environment.

[0089] FIG. **7** illustrates a switch configuration for changing a sensor arrangement pattern according to an exemplary embodiment of the present invention. It is assumed that the sensor arrangement pattern in FIG. **5**B is changed to the sensor arrangement pattern in FIG. **7**.

[0090] Referring to FIG. **7**, the switch array **183** includes six switches **81** to **86**, each of which connects three ports with touch sensors. Each of the switches **81** to **86** is connected with four touch sensors (as shown in FIG. **5**B). For example, the switch **81** is connected with touch sensors Y**0**, Y**1**, Y**12** and Y**13** (as shown in FIG. **5**B). As only three ports are assigned to the switch **81**, the switch **81** cannot connect the three ports with the four touch sensors on a one-to-one basis. Hence, the switch **81** connects at least two touch sensors with one port. Assuming that the sensor arrangement pattern corresponding to an application to be executed indicates that the first touch panel **140** is composed of 12 touch sensors on horizontal lines and 6 touch sensors on vertical lines and the second touch panel **150** is composed of 6 touch sensors on horizontal lines and 6 touch sensors on vertical lines, the touch controller **182** controls the switch array **183** to combine each pair of touch sensors on adjacent horizontal lines into one touch sensor. The two combined touch sensors have sensing elements arranged on two adjacent horizontal lines.

[0091] As shown in FIG. **7**, the touch controller **182** controls the switch array **183** so that the second touch panel **150** includes six touch sensors on horizontal lines. The switch **81** combines touch sensors Y**12** and Y**13** (as shown in FIG. **5**B) into a touch sensor Y**12** (as shown in FIG. **7**). Similarly, the switches **82** to **86** produce touch sensors Y**13** to Y**17**, respectively, through sensor combination.

[0092] FIG. **8** illustrates another switch configuration for changing a sensor arrangement pattern according to an exemplary embodiment of the present invention. It is assumed that the sensor arrangement pattern in FIG. **5**B is changed to the sensor arrangement pattern in FIG. **8**.

[0093] Referring to FIG. **8**, the switch array **183** includes three switches **87** to **89** connecting 6 to 8 ports with touch sensors, and a switch **90** connecting ports with touch sensors on vertical lines. Each of the switches **87** to **89** is set to connect touch sensors with **6** ports. Each of the switches **87** to **89** is connected with 8 touch sensors in FIG. **5**B. The switch **87** is connected with touch sensors Y**0** to Y**3** and Y**12** to Y**15** in FIG. **5**B. As the switch **87** is assigned 6 ports, the switch **87** cannot directly connect 8 touch sensors in all with 6 ports. Under the control of the touch controller **182**, the switch **90** may connect all touch sensors on vertical lines in the first touch panel **140** and second touch panel **150** with ports, connect all touch sensors on vertical lines in the first touch panel **140** with ports, or connect all touch sensors on vertical lines in the second touch panel **150** with ports.

[0094] For example, assume that the sensor arrangement pattern corresponding to an application to be executed indicates that the first touch panel **140** is composed of 12 touch sensors on horizontal lines and 6 touch sensors on vertical lines and the second touch panel **150** is composed of 12 touch sensors on horizontal lines. The touch controller **182** controls the switch **90** to block connections between touch sensors on vertical lines in the second touch panel **150** and ports of the touch controller **182**. The touch controller **182** increases the number of assigned ports from 6 to 8 for the switches **87** to **89**. This serves to assign more ports to touch sensors on horizontal lines in the second touch panel **150** by not assigning ports to touch sensors on vertical lines. The touch controller **182** controls the switches **87** to **89** so that all touch sensors on horizontal lines in the second touch panel **150** are connected with ports.

[0095] The touch panel operating method according to an exemplary embodiment of the present invention may be implemented as computer programs and may be stored in various computer readable storage media. The computer readable storage media may store program instructions, data files, data structures, and combinations thereof. The program instructions may include instructions developed specifically for the present invention and existing general-purpose instructions.

[0096] The computer readable storage media includes a variety of physical media, including magnetic media, such as a hard disk and floppy disk; optical media, such as a Compact Disc (CD) and Digital Versatile Disc (DVD); magneto-optical media such as a floptical disk; and memory devices such as a Read Only Memory (ROM) and RAM. The program instructions may include machine codes produced by compilers and high-level language codes executable through interpreters.

[0097] While the invention has been described with reference to certain exemplary embodiments thereof, it will be understood by those skilled in the art, that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined in the appended claims and their equivalents.

What is claimed is:

1. A mobile terminal comprising:

a first touch panel disposed at one side of the mobile terminal and comprising at least one touch sensor;

a second touch panel disposed at another side of the mobile terminal and comprising at least one touch sensor; and

a touch controller having a plurality of ports,

wherein at least one of the plurality of ports is connected to a touch sensor in the first touch panel and at least one of the plurality of ports other than the port connected to the first touch panel is connected to a touch sensor in the second touch panel, and

wherein the touch controller conducts scanning on the first touch panel and second touch panel to recognize a touch on the first touch panel or second touch panel.

2. The mobile terminal of claim **1**, wherein the touch sensor is one of a horizontal touch sensor having multiple sensing elements arranged in a row along the horizontal direction and a vertical touch sensor having multiple sensing elements arranged in a row along the vertical direction.

3. The mobile terminal of claim **2**, wherein each of the first touch panel and the second touch panel comprise horizontal touch sensors arranged in the vertical direction and vertical touch sensors arranged in the horizontal direction.

4. The mobile terminal of claim **3**, wherein the touch controller scans, in order, horizontal touch sensors in the first touch panel, horizontal touch sensors in the second touch